

ABSTRACTS POSTER SESSION

THE ULTRASTRUCTURE OF SMOOTH MUSCLE CELLS FROM THE ANTERIOR ADDUCTOR MUSCLE OF *LASMIGONA COSTATA* (RAFINESQUE, 1820) (MOLLUSCA: BIVALVIA: UNIONIDAE). Michael A. Hoggarth, The Ohio State University Museum of Zoology, Columbus.

Specimens of *Lasmigona costata* (Rafinesque, 1820) were collected on 16 October 1982 from Big Darby Creek in Pickaway County, Ohio. Anterior adductor muscle from this species was excised and prepared for examination in an electron microscope. Smooth muscle cells with paramyosin-containing thick filaments were observed. These filaments had a diameter between 650 nm to 950 nm. Some filaments were found in oblique orientation to the predominant direction of myofilaments in the cells. This is a character shared by the genus *Anodonta* and in fact the smooth muscle cells of the adductor muscles of *Anodonta* and *Lasmigona* were found to be similar. Also contained within the smooth muscle cells of *L. costata* is a single central nucleus per cell, peripheral mitochondria and an extensive sarcoplasmic reticulum. The cells are surrounded by a sarcolemma and nerve endings containing dense-core vesicles were found within the endomysium.

MOVING THE CANADIAN NATIONAL MOLLUSC COLLECTION AND A TOUR OF THE NEW FACILITIES. Jane M. Topping, Mollusc Unit, IZD, NMNS, NMC, Ottawa, Ontario, Canada.

In July 1967 the Canadian National Mollusc Collection was moved from the Victoria Memorial Museum Building to temporary quarters in the Beamish Building. These accommodations proved very inadequate for both collection storage and working conditions as the building had been constructed as a warehouse. We were housed there until November 1982 at which time we undertook to move to yet another temporary location. The new accommodations provide excellent facilities and should prove more than adequate until such time as the proposed central complex for all of the Museum of Natural Sciences is constructed.

The Mollusc Unit is now located at 2379 Holly Lane in the SE end of the city close to Ottawa International Airport.

An invitation is extended to researchers to visit. For more information please contact:

Mollusc Unit, Invertebrate Zoology Division
Nat. Mus. Nat. Sci., Nat. Mus. Can.
2379 Holly Lane
Ottawa, Ontario
Canada K1A 0M8
Area Code (613) 998-9262

SHELL SHAPE AND SEXUAL DIMORPHISM IN *AFORIA CIRCINATA* (PROSOBRANCHIA: TURRIDAE). Ronald Shimek, Bamfield Marine Station, British Columbia, Canada.

Mature females of *Aforia circinata* develop a distinct canal-like notch on the anterior edge of the outer shell lip. This notch is not found in immature animals of either sex or mature males. Sexual maturity appears to occur at lengths of about 70 mm, and all females over 72 mm long have the notch. Smaller females may have a low ridge, with similar ridges found on a few mature males, that appears to be an ontogenetic precursor of the notch. Similar notches are seen in a few other deep water turrid species, and may represent common solutions to some reproductive stress, possibly encountered during oviposition, of the females.

LINNAEUS'S ARRANGEMENT OF SHELLS. A. J. Cain, Zoology Department, University of Liverpool, United Kingdom.

It is usually said that the last class, *Vermes*, in Linnaeus's classification of animals (*Systema Naturae*, 10th edition, 1758) is purely artificial, a mere rag-bag of forms he could not place elsewhere. An examination of the order Testacea shows that, on the contrary, the genera and species are carefully arranged in a series, connecting to the previous order (Mollusca) and the succeeding one (Lithophyta). We know that Linnaeus insisted that genera must be natural; he may well have thought of the whole series as natural, as well as a great convenience in identification. It is not certain whether he regarded it as the Ladder of Nature, or as the product of hybridization (or, of course, both).